



Linn County Department of Health Services

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"Working together to promote the health and well-being of all Linn County residents."

March 3, 2009

REVISED
& APPROVED
PLAN

Nancy Gramlich
DEQ Western Region
750 Front St. NE, Ste.120
Salem, OR 97301-8240

RECEIVED
MAR - 5 2009
DEQ-SALEM OFFICE

RE: Linn County TMDL Implementation Plan

Dear Nancy,

Thanks for providing detailed written comments on Linn County's TMDL Implementation Plan. We have reviewed your comments and offer our collective responses on matters of general interest. In addition, each affected department head has reviewed and responded individually to your comments regarding the specific strategies under their purview.

Our responses follow your review checklist and are summarized in the attached document. Those concerning matters of general interest (Part II-Component Checklist Table) are addressed on pages one and two of the introduction to the County's TMDL implementation plan, which is also attached. Individual department responses to your comments (Part III-Section 3) are addressed in the relevant sections of the plan matrix. Because there is no reliable, ongoing source of funding for our TMDL efforts, our ability to commit resources beyond the strategies and timelines identified in the plan is extremely limited. This is the primary reason we are unable to provide the level of specificity you suggest for "milestones." We are committed to the annual reporting process, so the implicit timeline for completion of the tasks or "milestones" in Section 3 of Linn County's plan is one year, unless otherwise stated. As strategies are implemented and resources are freed up or made available, we will be able to consider adding new strategies to the plan, such as those you suggested in your comments.

Since the plan was adopted by the Board of Commissioners, and the changes we are discussing here are relatively minor, I do not intend to bring these changes before the Board at this time. At some point in the future, staff may bring a collection of accumulated changes back to the Board of Commissioners for their consideration. In the meantime, the responsible departments will pursue the strategies already outlined in the adopted plan along with the agreed upon changes resulting from this and subsequent reviews. I hope you find these clarifications and our responses to your comments and questions sufficient to approve Linn County's plan.

Sincerely,



Rick Partipilo, REHS
Environmental Health Program Manager

cc: Darrin Lane, Road Master
Robert Wheeldon, Planning Director
Brian Carroll, Parks and Recreation Director

TMDL Implementation Plan Review Checklist for Approval
Linn County's Response

Part I Geographic and Contact Information

See revised Linn County TMDL Implementation Plan – Section 1: Introduction

Part II OAR 340-042-0080 Component Checklist

Component Checklist Table

1(a): See revised Linn County TMDL Implementation Plan – Section 1: Introduction

1(f): There was no pre-planning “gap analysis” performed by Linn County. Instead, we expect the discussion of gaps and strategies to be an integral part of the annual reporting and review process. Existing ordinances are effective for illicit discharges and other matters of code enforcement. See 6(b)(1) for discussion of erosion control.

3(a): See cover letter.

4(c): See cover letter and revised Linn County TMDL Implementation Plan – Section 1: Introduction

4(d): See revised Linn County TMDL Implementation Plan – Section 1: Introduction

4(e): See revised Linn County TMDL Implementation Plan – Section 1: Introduction

6(b)(1): The Planning and Building Department will assure integration of 1200C permits into the development process. In addition, the County's fill and excavation code addresses erosion control on parcels of all sizes including development which disturbs less than 1 acre. Whenever the County is the developer, 1200C permits are obtained and fill and excavation code requirements are met.

Part III Review Status

Section 3

“Unidentified non point source pollution:” Means any and all unknown or yet to be discovered sources of TMDL contaminants in Linn County.

“Milestones missing:” Hopefully, the cover letter and revised plan introduction help clarify why we are not able to project interim steps and completion dates with certainty. In lieu of milestone projections, we will report actual progress annually.

Page 11: Not sure what you mean by “high risk residential and commercial systems.” All are included in this strategy. See previous comment about milestones.

Page 12: Lebanon is not on our “to do” list for this year. It will appear after Albany is completed, as will other cities in some order of priority yet to be established.

Page 13: Darrin

Page 14: Robert

Page 15: Brian

Page 16 (HHW): Sorry, I don’t understand your comment. The strategy seems clear.

Page 16 (BMP; should be Page 17): Darrin

Page 18 (Erosion): Robert

Page 18 (Public Facility Construction): Brian

Page 19: Darrin

Page 20: Darrin

Page 21 (Fertilizers and Pesticides): Many fertilizers contain pesticides. Fertilizer runoff and leaching promote eutrophication. Eutrophication lowers dissolved oxygen; the same effect as increased temperature.

Linn County TMDL Implementation Plan

SECTION 1: INTRODUCTION

Management Strategies. Linn County will seek to identify and assess the sources of bacteria, mercury, and temperature contamination of surface waters, identify appropriate management strategies within its jurisdictional purview, and secure achievable reductions in those sources. The County will comply with TMDL mandates in its conduct of daily business, and it will enforce existing codes as needed to secure TMDL compliance by others.

The pollutants/parameters, basins, and receiving streams subject to this plan are the same as those identified in the DEQ's Water Quality Management Plan. Linn County will apply the same strategies to all listed streams and their tributaries. When appropriate, the County will work cooperatively with other jurisdictions to implement these strategies.

Management strategies identified to date are presented here in two different formats; by source in Section 2 of this plan, and by contaminant and Department in Section 3 of this plan. Section 2 is intended to provide an overview of possible management strategies for the next five years, which have been identified so far. These strategies may be fine tuned, added to or deleted from this listing over time. Section 3 may be considered the current active to do list for the next one year period. In some cases implementation will cover multiple years. Strategies in Section 3 will be the subject of annual reporting by Linn County to DEQ.

Public Involvement. Linn County will determine how best to provide opportunities for public involvement based on local needs and requirements. The County will collaborate with existing groups that have an interest in Willamette Basin TMDLs, such as watershed councils, League of Cities, Association of Counties, SB1010 Local Advisory Committees, federal and state agencies, and others.

Costs and Funding. To the extent possible, the County will integrate TMDL planning and implementation functions with existing core program functions. Implementation of plan elements which are outside of existing core program functions will require adequate funding from outside sources and budget authority. The County will support collaborative efforts to secure funding from outside sources such as:

- Oregon Plan for Salmon and Watersheds OWEB
- Environmental Quality Incentives Program USDA-NRCS
- Wetland Reserve Program USDA-NRCS
- Conservation Reserve Enhancement Program USDA-NRCS
- Stewardship Incentive Program ODF
- Access and Habitat Program ODFW
- Partners for Wildlife Program USDI-FSA
- Water Projects OWRD
- Nonpoint Source Water Quality Control! (319) Grants ODEQ-USEPA

- Statewide Planning Goals Technical Assistance Grants DLCD
- Oregon Community Foundation OCF
- Watershed Initiative Grants USEPA
- Clean Water State Revolving Fund (SRF) Low Interest Loans ODEQ

Cross-program linkages. The County will endeavor to coordinate its TMDL efforts with those of other state and local programs operating within the County such as:

- Source Water Assessment
- Underground Injection Control
- Environmental Clean-up
- Hazardous Waste Generation

Compliance with Land Use Requirements. All actions proposed in this plan are consistent with local land use requirements.

Monitoring, Evaluation and Reporting. The matrix columns titled MEASURE, TIMELINE, MILESTONE and STATUS contain the information and data that will be used to monitor and assess progress. Linn County will encourage, promote and participate in area-wide collaborative efforts to effectively monitor TMDL implementation progress.

Adaptive Management. The plan is intended to cover a period of 5 years. In years, 1-4, the County will implement, evaluate and update the strategies in Section 3 and report progress to DEQ annually. Some strategies will be ongoing for the entire period, while others will be completed and replaced by new strategies developed from those identified in Section 2. During year 5, the County will evaluate all strategies identified and implemented over the preceding 4 years and adapt the plan for the next 5 year period.

SECTION 2: MANAGEMENT STRATEGIES BY SOURCE

ROADS, HIGHWAYS, AND BRIDGES

Programs

- Prepare a management plan to ensure that pre- and post-construction storm water runoff from roads, highways, and bridges is treated prior to discharge to a water body
- Protect sensitive ecosystems, including wetlands and estuaries, by minimizing road-building mileage in those systems, minimizing the number of water crossings, and establishing protective measures including setbacks during construction
- Site roads, highways, and bridges away from areas that are sensitive ecosystems and susceptible to erosion and sediment loss whenever feasible
- Develop an approved erosion, sediment, and chemical control plan prior to construction

Structural

- Implement the approved erosion, sediment, and chemical control plan
- Implement the storm water management plan to ensure that pre- and post-construction storm water runoff from roads, highways, and bridges is treated prior to discharge to a water body
- Limit runoff of pollutants through the use and proper maintenance of structural controls
- Ensure the proper use, storage, and disposal of toxic materials to prevent significant chemical and nutrient runoff to surface water
- Construct runoff management systems to reduce pollutant concentrations in runoff from existing roads, highways, and bridges when funding sources are identified and secured.

Operation and Maintenance

- Develop and implement an operation and maintenance program with a schedule of regular and long term inspection and maintenance ensuring the proper operation and effectiveness of both structural and source controls, e.g. storm water system maintenance and/or road maintenance actions that prevent erosion of road surfaces
- Ensure that all roads, highways and bridges runoff facilities are operated and maintained properly
- Ensure the continued effectiveness of stream crossing structures
- Limit generation of pollutants from maintenance operations by minimizing the use of pesticides, herbicides, fertilizers, and deicing salts and chemicals in sensitive areas
- Limit generation and runoff of pollutants during highway and bridge repair operations through use reduction and prevent spillage into sensitive areas and waters of the state
- Use good “housekeeping” practices to prevent off-site transport of waste material and chemicals
- Develop and implement a plan for routine street/road/highway/bridge cleaning operations
- Develop and implement a plan for an integrated vegetation/roadside maintenance controls
- Ensure debris removal and disposal follows all environmental/land use regulations

- Develop and implement a pollution prevention/good “housekeeping” plan

Education and Outreach

- Develop education materials for contractors, and others involved with the design, installation, operation, inspection, and maintenance of erosion and storm water facilities
- Conduct public education and outreach on storm water impacts
- Encourage public involvement/participation
- Develop employee training materials and conduct training on pollution prevention/good “housekeeping” techniques

Monitoring, Evaluation, and Reporting

- Conduct program implementation effectiveness monitoring of selected structural and source control BMPs
- Report on the status of compliance with any permit conditions
- Provide adequate record keeping and report results of any information collected and analyzed, including monitoring data, if any

PUBLIC FACILITIES AND SERVICES

Programs

- Prevent pollutants from leaving the site during land-disturbing activities
- Protect, preserve, enhance, and restore riparian habitat and other sensitive areas
- Minimize the amount of and disconnect impervious areas
- For lawn and garden activities limit pesticide and fertilizer application
- Develop and implement a Pollution Prevention Control Plan for turf management on golf courses, parks, and recreational areas
- Develop and implement proper processes for disposal of pet wastes
- Promote recycling (to reduce litter)

Structural

- Construct those structural elements of the Pollution Prevention Control Plan

Operation and Maintenance

- Use good “housekeeping” practices to prevent off-site transport of waste material and chemicals
- Implement re-vegetation/lawn maintenance controls
- Implement the developed operation and maintenance program, e.g. storm water system maintenance
- Implement the developed pollution prevention/good “housekeeping” plan for public operations
- Conduct routine maintenance of storm sewer systems
- Ensure proper maintenance because of the vital role it plays in ensuring the proper operation and effectiveness of both structural and source controls

Education and Outreach

- Encourage public involvement/participation
- Develop employee training materials and conduct training on pollution prevention/good “housekeeping” techniques

Monitoring, Evaluation, and Reporting

- Report on the status of compliance with any permit conditions
- Report the BMP activities planned for the next reporting period including improved or different BMPs
- Provide adequate record keeping and report results of any information collected and analyzed, including monitoring data, if any

MARINAS AND PORTS

Programs

- Conduct a water quality and habitat assessment in the siting and design of both new and expanded marinas and ports
- In the siting and design of marinas and ports allow for maximum flushing of the water supply for the site
- Fueling stations should be located and designed so that, in the case of an accident, spill contaminants can be contained in a limited area

Structural

- Site marinas adjacent to deep waters to eliminate or minimize the need for dredging
- Fueling stations should have fuel containment equipment as well as a spill contingency plan
- New and expanding marinas should install pump-out, pump station, and restroom facilities
- Adequate solid waste and fish cleaning collection and disposal areas should be provided
- Fueling stations should have adequate controls and clean-up materials and posted procedures in place to prevent fuel spills and oil leaks

Operation and Maintenance

- Solid wastes produced by the operation, cleaning, maintenance, and repair of boats should be properly disposed of
- Sewage pump-out facilities should be maintained in operational condition and their use encouraged to reduce untreated sewage discharges
- Measures should be developed such as posting speed signs to control boating operations in shallow areas and concentrated boating activities to reduce shoreline erosion

Education and Outreach

- Public education/outreach/training programs should be instituted for boaters, as well as marina operators to prevent improper disposal of polluting materials
- Encourage public involvement/participation

Monitoring, Evaluation, and Reporting

- Report on the status of compliance with any permit conditions
- Report the BMP activities planned for the next reporting period including improved or different BMPs
- Provide adequate record keeping and report results of any information collected and analyzed, including monitoring data, if any

NEW DEVELOPMENT

Programs

- Review and amend comprehensive land use plans and ordinances as necessary (using the DLCD/DEQ Water Quality Model Code and Guidebook, 2001) such as:
 - Geo-hazard overlay
 - Riparian and wetland protection overlay
 - Floodplain protection overlay
- Protect buffers, riparian and wetland.
- No net increases of off-site runoff --maintain predevelopment site hydrology
- Limit increase of impervious areas
- Implement nonstructural controls for reducing or eliminating the discharge of pollutants run off
- To assess the impacts on water quality by means of the Linn County Floodplain Management code.

Structural

- Collect and treat storm water with infiltration, filtration, and detention BMPs either on-site or in regional facilities prior to discharge to waters of the state such as:
 - First flush diversion systems
 - Detention/infiltration basin
 - Retention basins
 - Extended detention basins
 - Infiltration trenches
 - Porous pavement (low traffic areas only)
 - Grass swales
 - Swirl concentrators
- Use existing open space/landscape areas for storm water retention
- Reduce erosion and retain sediment on-site during and after construction
- Monitor land disturbance activities, such as clearing and grading and cut-and-fill
- Limit disturbance of natural drainage features including buffers and vegetation
- Preserve natural areas, including in-stream habitat, riparian zones, wetlands, and highly erosive slopes

Operation and Maintenance

- Develop a pollution prevention/good “housekeeping” plan for public and private operations
- Proper maintenance plays a vital role in ensuring the proper operation and effectiveness of both structural and source controls

Education and Outreach

- Develop training and education programs and materials for public officials, contractors, and others involved with the design, installation, operation, inspection, and maintenance of erosion and storm water BMPs
- Encourage public involvement/participation
- Develop employee training materials and conduct training on pollution prevention/good “housekeeping” techniques

Monitoring, Evaluation, and Reporting

- Report on the status of compliance with any permit conditions
- Report the BMP activities planned for the next reporting period including improved or different BMPs

EXISTING DEVELOPMENT

Programs

- Develop and implement local planning and procedures such as ordinances and design standards
- To the extent practicable, maintain and/or re-establish natural hydrology of the watershed by maintaining post-development peak runoff rate and average volume at levels that are similar to predevelopment levels

Structural

- Add where feasible and necessary BMPs to promote infiltration, filtration, retention, and detention to runoff

Operation and Maintenance

- Develop and implement a pollution prevention/good “housekeeping” plan for public and private operations
- Proper maintenance plays a vital role in ensuring the proper operation and effectiveness of both structural and source controls

Education and Outreach

- Develop training and education programs and materials for public officials, contractors, and others involved with the design, installation, operation, inspection, and maintenance of existing development BMPs
- Conduct public education and outreach on storm water impacts
- Encourage public involvement/participation
- Develop employee training materials and conduct training on pollution prevention/good “housekeeping” techniques

Monitoring, Evaluation, and Reporting

- Report on the status of compliance with any permit conditions

NEW AND EXISTING ONSITE DISPOSAL SYSTEMS

Programs

- Ensure applicants for DEQ and/or county permit for onsite installations follow all applicable onsite regulations
- Continue inspection of all new and replacement onsite systems
- Ensure proper disposal of residuals pumped from septic tanks, holding tanks and vaults

Structural

- Site new and replace or fix failing onsite systems serving County facilities as part of the County's onsite systems program

Operation and Maintenance

- Ensure proper operation of public and private systems to prevent off-site migration of water carried wastes
- Enhance existing operation and maintenance program for specific classes of onsite systems
- Encourage proper maintenance of all public and private onsite systems

Education and Outreach

- Develop training and education programs and materials and conduct training for public officials, contractors, and others involved with the design, installation, operation, inspection, and maintenance of onsite systems, including mortgage institutions and realtors
- Encourage public involvement/participation

Monitoring, Evaluation, and Reporting

- Evaluate effectiveness of onsite program operations
- Conduct in stream monitoring when appropriate to identify failing onsite systems
- Provide adequate record keeping and report results to DEQ of any monitoring data collected and analyzed

For annual reporting

Approved March

SECTION 3: MANAGEMENT STRATEGIES BY POLLUTANT-BACTERIA

DEPARTMENT: HEALTH-EH

Source	Strategy	How	Fiscal	Measure	Timeline	Milestone	Status
Failing septic systems	Ensure repair of failing systems.	<ul style="list-style-type: none">• respond to reports of failing systems• work with homeowner to set a timeline for repair• use existing enforcement methods to gain compliance	currently funded in budget	track #'s using complaint and permit databases	ongoing		
	Educate homeowners about system maintenance and how to detect failures.	<ul style="list-style-type: none">• provide written material with CSC• visit installed SF sites to assess O&M status	<ul style="list-style-type: none">• \$ needed for printing costs• Site visits contingent on intern availability	<ul style="list-style-type: none">• Track #'s mailed• Track site visits• log data	begin at adoption of TMDL plan, then ongoing		
	Ensure that selected residential and commercial systems are properly maintained.	Provide annual inspection or certification review for holding tanks, ATT's, sand and gravel filters.	Currently funded in budget	Track inspections, certification reviews and compliance actions in database	ongoing		

SECTION 3: MANAGEMENT STRATEGIES BY POLLUTANT-BACTERIA

DEPARTMENT: HEALTH-EH

<p>Failing septic systems, cont.</p>	<ul style="list-style-type: none"> Identify legacy septic systems (those which predate permit records) within urban growth boundaries and rural community centers. Encourage cities to do the same within city limits. 	<ul style="list-style-type: none"> Use GIS to map permitted systems Compare to developed parcels Screen for soil type and lot size Quantify risk Map results 	<ul style="list-style-type: none"> \$ needed for EH and GIS staff. Grant funds needed for public facilities expansion and improvements 	<p>Prioritize areas based on risk. Map UGBs of largest cities first, count maps produced and delivered. Document areas served by new infrastructure.</p>	<p>Begin at adoption of TMDL plan, then ongoing; one large city per year, then multiple smaller cities each subsequent year, followed by rural community centers; complete in 5 yrs.</p>	<p>Convey map results to cities; offer to meet with city staff and other decision makers to discuss findings.</p>	<p>Initial discussion and map review completed for areas within City of Albany.</p>
<p>Unidentified non-point sources</p>	<p>Participate in collaborative efforts with DEQ, ODA, cities, and allied agencies to discover unidentified non-point sources of bacterial contaminants</p>	<ul style="list-style-type: none"> Respond to citizen complaints Contact agencies with shared jurisdiction Develop joint action plans 	<p>Not currently funded in budget; larger projects may require grant funding</p>	<p>Lead agency will track each complaint and document response efforts and results.</p>	<p>Ongoing as complaints are received</p>	<p>Develop joint response plan within 6 months of complaint validation.</p>	<p>Joint action plan developed for Truax and Burkhart Creeks.</p>

SECTION 3: MANAGEMENT STRATEGIES BY POLLUTANT-BACTERIA

DEPARTMENT: ROADS

Source	Strategy	How	Fiscal	Measure	Timeline	Milestone	Status
Ditches and Storm Water Facilities	Monitor ditches and storm water facilities for sewage and other sources of bacterial infiltration	<ul style="list-style-type: none"> Respond to complaints Observation by maintenance personnel 	Included in normal maintenance operations	<ul style="list-style-type: none"> Forward incident information and resolution efforts to agency or program with jurisdiction such as: Environmental Health, Dept. of Ag, DEQ, etc. 	Begin at adoption of TMDL plan, then ongoing		
Unidentified non-point sources impacting road right-of-way	Reduce impacts to water quality by raising public awareness.	Develop public service announcements and educational materials	Not currently funded. May be able to fund during normal budget cycle	Measure effectiveness by performing periodic public awareness surveys.	Begin at adoption of TMDL plan, then ongoing		

SECTION 3: MANAGEMENT STRATEGIES BY POLLUTANT-BACTERIA

DEPARTMENT: PLANNING & BUILDING

Source	Strategy	How	Fiscal	Measure	Timeline	Milestone	Status
Residential, commercial, and industrial development	Collect and treat storm water with infiltration, filtration, and detention on site	Promote established training and education programs and materials for contractors and property owners on erosion and storm water BMP's	No funding	Report the status of compliance with any permit conditions.	Ongoing		
	Review and amend comprehensive land use plans and ordinances as necessary.	Guidance from DLCDC and DEQ	Not currently funded.	Monitor permits being issued with in overlay districts such as the Willamette River Greenway and aggregate resource overlays	Ongoing		
	Assure that all permitted development is properly connected to an approved method of sewage disposal	Coordinate permit sign-off with DEQ agent, do not issue certificate of occupancy until CSC or sign-off provided by DEQ.	Current budget	Number of plumbing permits issued	Ongoing		

SECTION 3: MANAGEMENT STRATEGIES BY POLLUTANT-BACTERIA

DEPARTMENT: PARKS

Source	Strategy	How	Fiscal	Measure	Timeline	Milestone	Status
Public Parks Waste water systems	<ul style="list-style-type: none"> Monitor on-site waste water system in all public facilities Lower RV waste strength to acceptable levels 	<ul style="list-style-type: none"> Annual inspection & reporting of system status Work with other public agencies to design an on site system to treat RV waste 	<ul style="list-style-type: none"> Existing budget Grants 	<ul style="list-style-type: none"> Compliance with allowable waste strength limits through annual testing Annual testing 	<ul style="list-style-type: none"> Ongoing Over the next two years start pilot program to deal with RV waste strength. 	<ul style="list-style-type: none"> Current, annual reporting to DEQ under WPCF permits Lowering waste water strength Develop a RV Waste water System acceptable for use by DEQ 	
	Limit and control pet waste	<ul style="list-style-type: none"> In parks with high visitation construct pet-off leash areas where pet waste can be easily cleaned up. Educate public through signage about cleaning up after pets. 	Existing budget	Reduction in staff time necessary for cleanup.	Ongoing	Sign in all park facilities	
	Reduce human waste entering water ways	Provide floating restrooms on water ways and pump out stations at boat ramps	Grants	Increase number of people using waste facilities	ongoing		
	Decrease angling waste entering waterways	Provide fish cleaning stations and fish line recycling	Existing budget and grants, volunteers and agency partnering	Increase number of stations	During renovation of existing facilities and construction of new facilities	Have a station on each water body.	

SECTION 3; MANAGEMENT STRATEGIES BY POLLUTANT-MERCURY

DEPARTMENT: HEALTH-EH

Source	Strategy	How	Fiscal	Measure	Timeline	Milestone	Status
HHW and CESQGs	Provide user-friendly disposal options for HHW and CESQGs	<ul style="list-style-type: none"> Develop, approve, and implement HHW plan Conduct outreach to public and CESQGs for Hg and other accepted wastes 	DEQ solid waste grants, current budget, and rate base	<ul style="list-style-type: none"> To the extent possible, measure participation rates for dental offices and quantities of fluorescent tubes, and switches received Use existing tracking methods such as customer counts and manifests to track categories and amounts of HW disposed. 	Begin with implementation of HHW plan (est. CY 2009), then ongoing.	Look for growth in amounts of Hg containing wastes disposed.	Final draft of HHW plan is distributed for comments.
	Coordinate County's HHW and CEG program initiatives with existing statewide DEQ HW efforts	<ul style="list-style-type: none"> Evaluate existing DEQ program elements Develop local initiatives that build upon DEQ's existing statewide HHW/CEG program efforts Use DEQ ed/promo materials 	Use local HHW/CEG funding	<ul style="list-style-type: none"> Document development of local program Hg initiatives that complement existing DEQ efforts Consider survey of CEGs to gauge awareness, use and convenience of Hg disposal options. 	Begin with implementation of HHW plan (est. CY 2009), then ongoing.	Look for growth in awareness and participation among CEGs	

SECTION 3; MANAGEMENT STRATEGIES BY POLLUTANT-MERCURY

DEPARTMENT: ROADS

Source	Strategy	How	Fiscal	Measure	Timeline	Milestone	Status
Equipment Maintenance Facilities	Minimize impacts to water quality by improving storm water quality.	<ul style="list-style-type: none"> • Install sediment removal systems • Utilize best management practices for disposal of wastes • Control infiltration of oil and other contaminants from entering storm water systems. 	Provide funding each fiscal year for incremental improvements over time	<ul style="list-style-type: none"> • Measure effectiveness by evaluating compliance with established BMPs. • Monitor complaints if any. 	Ongoing	Documentation will be completed as BMPs are developed and integrated into Road Department operations	Currently implementing BMPs and developing systems
Ditches and Storm Water Facilities	Monitor ditches and storm water facilities for excessive sediment transportation	<ul style="list-style-type: none"> • Respond to complaints • Observation by maintenance personnel 	Included in normal maintenance operations	Forward incident information and resolution efforts to tracking agency	Begin at adoption of TMDL plan, then ongoing		
Unidentified non-point sources impacting road right-of-way	Reduce impacts to water quality by raising public awareness.	Develop public service announcements and educational materials	Not currently funded. May be able to fund during normal budget cycle	Measure effectiveness by performing periodic public awareness surveys.	Begin at adoption of TMDL plan, then ongoing		

SECTION 3; MANAGEMENT STRATEGIES BY POLLUTANT-MERCURY

DEPARTMENT: PLANNING & BUILDING

Source	Strategy	How	Fiscal	Measure	Timeline	Milestone	Status
Erosion	Mitigate the impacts of development on water quality by means of the Linn County Fill and Excavation code and DEQ 1200C permits	Limit land disturbance activities, monitor 1200C permitting and use BMPs for fill and excavation activities.	Current budget	Report activities including numbers of 1200C permits tracked and fill and excavation permits issued.	ongoing		

DEPARTMENT: PARKS

Source	Strategy	How	Fiscal	Measure	Timeline	Milestone	Status
Public Facility Construction	Use BMP's to limit runoff contaminates	Where appropriate use silt fences, hay bales, and other silt containment devices.	Existing budget	Monitor water during construction for silt plumes No silt contamination	Ongoing	Comply with project specific BMPs required by reviewing and permitting agencies.	
Erosion	Reduce shoreline erosion	Limit speed around boating facilities Provide signage at an brochures at boat ramps	Existing available resources	Signage at boat ramp kiosks	ongoing		

SECTION 3; MANAGEMENT STRATEGIES BY POLLUTANT-TEMPERATURE

DEPARTMENT: EH

Source	Strategy	How	Fiscal	Measure	Timeline	Milestone	Status
n/a	n/a	n/a	n/a	n/a	n/a		n/a

DEPARTMENT: ROADS

Source	Strategy	How	Fiscal	Measure	Timeline	Milestone	Status
		•		•			
		•		•			

SECTION 3; MANAGEMENT STRATEGIES BY POLLUTANT-TEMPERATURE

DEPARTMENT: ROADS

Ditches and Storm Water Facilities, cont.	Reduce water temperature in storm water facilities near sensitive areas.	<ul style="list-style-type: none"> • Provide or maintain shading along storm water outlets near sensitive areas where ever possible. • Limit the reduction of shade along right-of-way near storm water outlets in sensitive areas 	Include in normal maintenance operations and construction budget following TMDL Plan implementation	<ul style="list-style-type: none"> • Measure effectiveness by evaluating compliance with established BMPs. • Monitor complaints if any. • Develop policy to minimize removal of shading trees and vegetation while maintaining the clear zone required for safety. 	Begin at adoption of TMDL plan, then ongoing	Adopt BMPs within 180 days of implementation.
Unidentified non-point sources impacting road right-of-way	Reduce impacts to water quality by raising public awareness.	Develop public service announcements and educational materials	Not currently funded. May be able to fund during normal budget cycle	Measure effectiveness by performing periodic public awareness surveys.	Begin at adoption of TMDL plan, then ongoing	

SECTION 3; MANAGEMENT STRATEGIES BY POLLUTANT-TEMPERATURE

DEPARTMENT: PLANNING & BUILDING

Source	Strategy	How	Fiscal	Measure	Timeline	Milestone	Status
Unidentified non-point sources	Protect buffer, riparian and wetland areas	Implementing current zoning and comprehensive plan.	Current budget		Currently established	Monitor building permit accuracy.	n/a

DEPARTMENT: PARKS

Source	Strategy	How	Fiscal	Measure	Timeline	Milestone	Status
Public Facility Design	Design Facilities to limit impacts on water ways	<ul style="list-style-type: none"> • Provide adequate buffer areas to water ways. • Slope facilities to avoid direct unfiltered runoff. • Utilize available technologies such porous asphalt and concrete. 	Grants		Ongoing/New construction and renovations	<ul style="list-style-type: none"> • Meet or exceed permit requirements. • Provide sustainable facilities that meet LEED specs 	
Fertilizer and pesticides	Reduce dependency on fertilizers and pesticides in landscape areas	<ul style="list-style-type: none"> • Limit application of fertilizers and pesticides. • Use alternative forms of weed control such as mechanical removal. 	Existing budget and grants	Decrease in the amount of fertilizer and pesticides applied	Annual monitoring of purchases and applications.		